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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,180	04/11/2001	Taku Ishizawa	Q64072	8824

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EXAMINER

VO, ANH T N

ART UNIT PAPER NUMBER

2861

DATE MAILED: 12/06/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/832,180

Applicant(s)

ISHIZAWA ET AL.

Examiner

ANH VO

Art Unit

2861

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____

16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)

17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) Other: _____

DETAILED ACTION

Oath/Declaration

The declaration filed 02 July 2001 is acceptable.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Disclosure Object to, Minor Informalities

The disclosure is objected to because of the following informalities:

In specification, lines 16 and 25 of page 28 and line 1 of page 29, "124" should be --24--. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 3 are rejected under 35 USC 102 (e) as being anticipated by Olsen et al. (US Pat. 6,158,853).

Olsen et al. discloses in Figures 1-4 an in container comprising:

- an ink pack (40 or 140) which is filled with ink and is formed into a flattened bag shape from flexible material (Figures 1 and 3);
- a case (48) housing the ink pack (40) and constituting an outer shell of the cartridge (Figures 1-2);
- a contact prevention member (38) which is provided within the ink pack (40) for preventing close contact between interior surfaces of the ink pack (40), caused due to a reduction of ink in the ink pack (40), thereby ensuring an ink flow passage (Figures 2-3);
- wherein the contact prevention member is formed from genuine material.

Claim 8 is rejected under 35 USC 102 (e) as being anticipated by Barinaga (US Pat. 6,030,074).

Barinaga discloses in Figures 1-3 an apparatus for delivering pressurized ink to a print head of an ink jet printer comprising:

- an ink pack (13) which is filled with ink and is formed into a flattened bag shape from flexible material;
- a case (10) housing the ink pack (13) and constituting an outer shell of the cartridge;
- wherein the ink cartridge is loaded to the recording apparatus so that surfaces of the flattened ink pack (13) are oriented in a substantially vertical state, and wherein an ink flow passages bulging outwardly of the ink pack (13) is formed on at least one of interior surfaces of flexible material constituting the ink pack to extend along a gravity direction lower side of the ink pack (13).

Claims 12-14, 16, 18-20, and 22-24 are rejected under 35 USC 102 (b) as being anticipated by Uzita (US Pat. 5,221,935).

Uzita discloses in Figures 8 and 10 an ink cartridge for an ink jet printer comprising:

- an ink pack (3) which is filled with ink and is formed into a flattened bag shape from flexible material (Figure 10);
- a case (2) housing the ink pack (3) and constituting an outer shell of the cartridge (Figures 2 and 10);
- the ink cartridge is loaded to the recording apparatus so that surfaces of the flattened ink pack are oriented in a substantially horizontal state (Figures 8 and 10);
- wherein ink flow (1) passages bulging outwardly of the ink pack are formed on at least one of interior surfaces of flexible material constituting the ink pack (3) to extend along respective sides of the ink pack perpendicular to a side in which an ink outlet port is formed (Figure 10);
- wherein the ink flow passage (1) is formed by press-forming flexible material constituting the ink pack (3) (Figure 10);
- wherein an ink outlet port side end of each ink flow passage (1) is extended to reach a vicinity of the ink outlet port (Figure 10);

- a plug member (1) provided to a shorter side of the substantially rectangular ink storage chamber (Figure 10);
- a protrusion (two parallel rods which is located within a bag 3) provided to at least one of the interior surfaces of the ink pack, and elongated substantially along a longer side of the substantially rectangular ink storage chamber (Figures 9A and 10);
- wherein the protrusion (two parallel rods) has an inclined portion angled with respect to both the shorter and longer sides (Figure 9C);
- wherein the recess has an inclined portion angled with respect to both the shorter and longer sides (Figure 9C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 USC 103 (a) as being unpatentable over Barinaga (US Pat. 6,030,074) in view of Olsen et al. (US Pat. 6,158,853).

Barinaga discloses in Figures 1-3 an apparatus for delivering pressurized ink to a print head of an ink jet printer comprising:

- an ink pack (13) which is filled with ink and is formed into a flattened bag shape from flexible material (Figure 3);

- a case (10) housing the ink pack (13) and constituting an outer shell of the cartridge (Figure 1);
- the case (10) is hermetically formed, and air pressure (76) can be applied from a recording apparatus to an interior of the case (10) to pressurize the ink pack (13) when the ink cartridge is loaded to the recording apparatus Figure 1);
- wherein the ink cartridge is loaded to the recording apparatus so that surfaces of the flattened ink pack (13) are oriented in a vertical direction (Figure 1).

However, Barinaga does not disclose a contact prevention member which is provided within the ink pack for preventing close contact between interior surfaces of the ink pack, caused due to a reduction of ink in the ink pack (40), thereby ensuring an ink flow passage; the contact prevention member is located at least partially in a lower position with respect to a direction of gravity; wherein the contact prevention member is formed by a single rod member; wherein the contact prevention member formed by the single rod member is fixed on one interior surface of flexible material constituting the ink pack; wherein the contact prevention member is formed by a single rod member bent into a substantially rectangular shape, and arranged the rod along four sides of the flattened ink pack.

Nevertheless, Olsen et al. disclose in Figures 1-4 an in container comprising:

- a contact prevention member (38) which is provided within the ink pack (40) for preventing close contact between interior surfaces of the ink pack (40), caused due to a reduction of ink in the ink pack (40), thereby ensuring an ink flow passage (Figures 2-3);
- the contact prevention member (38) is located at least partially in a lower position with respect to a direction of gravity (Figures 1-2)
- wherein the contact prevention member (38) is formed by a single rod member (Figure 2);
- wherein the contact prevention member (38) formed by the single rod member is fixed on one interior surface of flexible material constituting the ink pack (40) (Figure 1);

- wherein the contact prevention member (38) is formed by a single rod member bent into a substantially rectangular shape, and arranged the rod along four sides of the flattened ink pack (40) (Figure 1).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Olsen et al. in the Barinaza ink bag for the purpose of separating sidewalls of an ink bag (40).

Claims 9-11 and 15 are rejected under 35 USC 103 (a) as being anticipated by Barinaga (US Pat. 6,030,074) in view of Uzita (US Pat. 5,221,935).

Barinaga discloses in Figures 1-3 an apparatus for delivering pressurized ink to a print head of an ink jet printer comprising:

- an ink pack (13) which is filled with ink and is formed into a flattened bag shape from flexible material;
- a case (10) housing the ink pack (13) and constituting an outer shell of the cartridge;
- wherein the ink cartridge is loaded to the recording apparatus so that surfaces of the flattened ink pack (13) are oriented in a substantially vertical state, and wherein an ink flow passages bulging outwardly of the ink pack (13) is formed on at least one of interior surfaces of flexible material constituting the ink pack to extend along a gravity direction lower side of the ink pack (13);
- wherein the case (10) is formed hermetically, and air pressure (76) can be applied from a recording apparatus to an interior of the case (10) to pressurize the ink pack (13) when the ink cartridge is loaded to the recording apparatus (Figure 1).

However, Barinaga does not disclose the ink flow passage is formed by press-forming flexible material constituting the ink pack and an end of the ink flow passage is elongated so as to reach a vicinity of an ink outlet port.

Nevertheless, Uzita discloses in Figures 8 and 10 an ink cartridge for an ink jet printer comprising:

- the ink flow passage (1) is formed by press-forming flexible material constituting the ink pack (3) (Figure 10);
- an end of the ink flow passage (1) is elongated so as to reach a vicinity of an ink outlet port (Figure 10).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Uzita in the Barinaza ink bag for the purpose of providing a seal cap for sealing an ink port.

Claims 17, 21 are rejected under 35 USC 103 (a) as being anticipated by Uzita (US Pat. 5,221,935) in view of Olsen et al. (US Pat. 6,158,853).

Uzita discloses in Figures 8 and 10 an ink cartridge for an ink jet printer comprising:

- an ink pack (3) which is filled with ink and is formed into a flattened bag shape from flexible material (Figure 10);
- a case (2) housing the ink pack (3) and constituting an outer shell of the cartridge (Figures 2 and 10);
- the ink cartridge is loaded to the recording apparatus so that surfaces of the flattened ink pack are oriented in a substantially horizontal state (Figures 8 and 10);

- a plug member (1) provided to a shorter side of the substantially rectangular ink storage chamber (Figure 10);
- a protrusion (two parallel rods which is located within a bag 3) provided to at least one of the interior surfaces of the ink pack, and elongated substantially along a longer side of the substantially rectangular ink storage chamber (Figures 9A and 10).

However, Uzita does not disclose the protrusion which includes a rod member attached to the one interior surface, wherein the protrusion is substantially rectangular.

Nevertheless, Olsen et al. disclose in Figures 1-4 an in container comprising:

- the protrusion (38) includes a rod member attached to the one interior surface (Figure 2);
- wherein the protrusion (38) is substantially rectangular (Figure 1).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Olsen in the Uzita ink cartridge for the purpose of separating sidewalls of an ink bag (40).

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (703) 305-8194. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M. to 6:00 P.M..

The fax number of this Group 2861 is (703) 305-3431 or 305-3432.

Serial Number: 09/832,180

Art Unit: 2861

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



**ANH T.N. VO
PRIMARY EXAMINER**

November 29, 2001